IN THE ABSTRACT

Following the Claims, please add the Abstract as follows:

--ABSTRACT OF THE DISCLOSURE

The IEEE 802.11a standard uses OFDM, where the transmission is divided into several orthogonal sub-carriers. Here, an algorithm is used for the frame detection; a simplified differentiator obtains an absolute maximum in the differentiated signal at that point where the first plateau in $J_F(k)$ starts; a peak detector obtains the position of the absolute maximum in the differentiated signal, divides the problem into relative peak detection and falling edge detection; a simplified XNOR-based crosscorrelator is used, where the simplifications are based on the knowledge of the reference; a particular solution is provided for the CORDIC algorithm in the vectoring mode for arctangent calculation; hardware structuring is presented for the whole synchronizer so as to obtain a simple control mechanism and the separation of this structure into different clock domains, each one being activated only to perform its operation and deactivated afterwards.

Fig. 17--